

U.S. DEPARTMENT OF ENERGY  
**Office of Electricity Delivery and  
Energy Reliability**



# **ENERGY ASSURANCE DAILY**

**September 8, 2005**

## **Highlights/Major Developments**

### **Update: Hurricane Katrina**

**OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)  
U.S. DEPARTMENT OF ENERGY  
Hurricane Katrina Situation Report #28  
September 8, 2005 (4:00 PM EDT)**

## **HIGHLIGHTS**

Currently, 689,185 customers remain without electric power in Louisiana and Mississippi due to Hurricane Katrina. This is down by over 2 million from a peak of 2.7 million customers that were without power after Hurricane Katrina struck the region.

ESF #12 assisted in the termination of the natural gas supply to the City of Pearlington, MS, because of reports of natural gas leaks throughout the Pearlington natural gas system.

The Energy Information Administration (EIA) released its Short Term Energy Outlook on 9/7/05 and estimated that normal to nearly normal operations of oil and gas production and distribution would be achieved by December 2005.

The LOOP expects to be operating at 100 percent within the next week, when Fourchon becomes operational. Currently the LOOP is still operating at 75 percent.

Natural gas transmission pipelines in the path of Katrina survived with minimal damage. Four natural gas processing plants accounting for roughly 5.5 billion cubic feet per day are currently not operating due to hurricane-induced damage. These plants can potentially be bypassed for a period of time while repairs are made with an acceptable impact on natural gas specifications.

Mississippi Power now estimates that all customers who can receive power will have service restored by the end of the day Sunday 9/11/05. Entergy also reports that most of its Mississippi customers will have power restored by then as well.

According to coal analysts, it is estimated that Hurricane Katrina may impact coal consumption this fall because coal-fired plants that typically ramp down following the peak summer months may be required to continue generating at high levels to make up for the gap caused by damage to gas production.

NOAA observed one of the largest solar flares on record 9/7/05 which could impact high frequency communications. Significant eruptions are expected in the coming days. Agencies impacted by space weather storms may experience disruptions over the next two weeks. These include spacecraft operations, electric power systems, HF communications, and low-frequency navigations systems. This could have an impact on emergency personnel in the Gulf who make use of those frequencies.

NOAA reports that tropical storm Ophelia off the coast of Florida (about 70 miles east-northeast of Cape Canaveral) became a Category 1 hurricane this afternoon. The storm is stationary and little overall movement is expected today. Maximum sustained winds are currently 70 miles per hour with higher gusts. Tropical storm winds extend outward up to 70 miles from the center and rain bands with strong winds in squalls have been spreading over portions of the Florida east coast in the tropical storm warning area.

<http://www.nhc.noaa.gov/>

## **PETROLEUM AND GAS INFORMATION**

According to Thursday's MMS reports, 15.26 percent of 819 manned platforms and 3.73 percent of 137 rigs remain evacuated in the Gulf of Mexico (GOM). Yesterday's shut-in oil production was 901,726 BOPD. The shut-in oil production is equivalent to 60.1 percent of the daily oil production in the GOM, which is currently approximately 1.5 million BOPD. Tuesday's shut-in gas production was 4,020 BCFPD. This shut-in gas production is equivalent to 40.2 percent of the daily gas production in the GOM, which is currently approximately 10 BCFPD.

### **Improvement in GOM Shut-in Oil and Gas 8/30/05 – 9/8/05**

<b>Date</b>	<b>Percent of GOM Oil Shut-in</b>	<b>Percent of GOM Gas Shut-in</b>
August 30	95.20	87.99
August 31	91.45	83.46
September 1	90.43	78.66
September 2	88.53	72.48
September 3	78.98	57.80
September 4	No data reported	No data reported
September 5	69.57	54.13
September 6	58.02	41.06
September 7	57.37	40.36
September 8	60.12 *	40.20

\*Oil Production Shut-ins continue to decline, despite the apparent rise in the figures released by MMS. According to MMS, this rise in the statistics occurred today because a company just reported a significant amount of shut-in oil production today that has been shut-in since the hurricane hit, but was not reported as such due to communications problems.

Entergy crews in Louisiana will assess the relaying at the BP Alliance 34.5kV substation tonight, 9/8/05. This will provide service to the ConocoPhillips (Belle Chasse) refinery. Additional assessments of the substations that connect to the ExxonMobil/PDVSA (Chalmette) and Murphy (Meraux) refineries will also continue today.

Entergy has 17 generating units in the New Orleans area that are fueled by natural gas and/or oil. Nine of those units have been returned to service, with one more expected to return late this week. Currently, generation capacity is sufficient to meet load, and their fuel supplies are adequate.

The lower Mississippi is open during daylight hours only to traffic with drafts of at least 39 feet. The Gulf Intracoastal Waterway (GIWW) was opened to traffic across areas of Louisiana Tuesday, with the exception of the Inner Harbor Navigational Canal (IHNC) which remains closed. Vessels may access the east of the IHNC via the Baptiste Collette alternate route. There is a draft limitation of 9.5 feet in the Baptiste Collette route.

The Port of New Orleans now reports that its headquarters building has power. The port is not open to commercial traffic; however, officials have set a goal by September 14 to allow commercial cargo ships enter the port. The Port is currently berthing military and relief vessels.

The Tables below show, as of 9/8/05, the current status of the refineries impacted by Hurricane Katrina. Improvements continue in the Southeast refinery complex.

**Table 1. Shutdown Refineries**

<b>Refinery</b>	<b>Location</b>	<b>State</b>	<b>Capacity (bbl/day)</b>	<b>Current Status</b>
ConocoPhillips*	Belle Chasse	LA	247,000	No power - major damage
ExxonMobil	Chalmette	LA	187,200	No power - water damage
Motiva (Shell)	Norco	LA	226,500	Limited damage, continue to make repairs – expecting to restart later this week
Murphy	Meraux	LA	120,000	No power – water is starting to recede, currently making assessment of damage, leaking crude oil tank repaired
Shell Chemical	St Rose	LA	55,000	Awaiting Norco restart
ChevronTexaco*	Pascagoula	MS	325,000	Damage unknown – assessment being made

**Table 2. Refineries with Reduced Runs**

<b>Refinery</b>	<b>Location</b>	<b>State</b>	<b>Capacity (bbl/day)</b>	<b>Current Status</b>
Marathon	Garyville	LA	245,000	Restarted – expecting full operation by the end of today
Motiva (Shell)	Convent	LA	235,000	Restarted – operating at 75 percent rate expect full production later this week.
Valero	Krotz Springs	LA	80,000	Close to 100 percent - receiving SPR
Valero	St. Charles	LA	185,000	Restarting – expecting to be fully operational within one week.

**Table 3. Refineries at Normal Production**

<b>Refinery</b>	<b>Location</b>	<b>State</b>	<b>Capacity (bbl/day)</b>	<b>Current Status</b>
Shell Chemical	Saraland	AL	80,000	Operating at full rate for gasoline and reduced rate for chemicals and other products
ConocoPhillips	Wood River	IL	306,000	OK
ExxonMobil*	Joliet	IL	238,000	OK
PDV Midwest	Lemont	IL	160,000	OK
Marathon	Robinson	IL	192,000	OK
BP	Whiting	IN	410,000	OK – receiving SPR
Marathon	Catlettsburg	KY	222,000	OK
Citgo*	Lake Charles	LA	324,300	OK
ConocoPhillips*	Lake Charles	LA	239,400	OK
ExxonMobil*	Baton Rouge	LA	493,500	OK – receiving SPR
Placid Oil*	Port Allen	LA	48,500	OK – receiving SPR
Marathon	Detroit	MI	74,000	OK
BP	Toledo	OH	160,000	OK – receiving SPR
Marathon	Canton	OH	73,000	OK
Premcor	Lima	OH	158,400	OK – receiving SPR
Premcor*	Memphis	TN	180,000	OK – receiving SPR
ExxonMobil*	Beaumont	TX	348,500	OK
Motiva (Shell)*	Port Arthur	TX	285,000	OK
Premcor	Port Arthur	TX	247,000	OK
Total*	Port Arthur	TX	211,500	OK - receiving SPR

\* Refineries with company owned and operated on-site power generation.

## **ELECTRICITY INFORMATION**

### **STATE OUTAGE DATA**

<b>Utility</b>	<b>Customers w/o Power</b>	<b>% Customers w/o Power from Katrina</b>
Louisiana*	459,534	42%
Mississippi	229,651	16%

\*Louisiana data is reported by the Louisiana Public Service Commission and their percentage outage numbers are used in calculating the percentage of total outage.

## **STATE REPORTS**

### **Mississippi and Louisiana**

In Louisiana 459,534 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (12:00 PM 9/8/05).

### Louisiana Outage Data by Parish (12:00 PM 9/8/05)

UTILITY	OUTAGES	% customers w/o power
Jefferson	131,826	63%
Lafourche	1,925	3%
Livingston	2,544	5%
Orleans	182,152	89%
Plaquemines	3,013	32%
St. Bernard	28,308	99%
St. Tammany	77,467	74%
Tangipahoa	12,835	23%
Washington	17,986	69%

\*Louisiana data and percentages are reported by the Louisiana Public Service Commission.  
Only Parishes with outages of more than 1,000 customers are shown

### Louisiana Outage Data by Utility (12:00 PM 9/8/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Louisiana	180,810	38%
Entergy Gulf States	0	0%
Entergy New Orleans	182,152	89%
DEMCO	1,533	2%
SLECA	362	2%
Wash-St. Tammany	40,650	90%
CLECO	54,027	68%
<b>Total</b>	<b>459,534</b>	<b>42%</b>

\*Louisiana data and percentages are reported by the Louisiana Public Service Commission.

As of 1:30 PM Thursday 9/8/05, Mississippi has 229,651 customers without power, which represents 16 percent of customers in the state, including 17,751 Entergy customers, 84,530 Mississippi Power customers, and 127,370 customers of the Electric Power Associations of Mississippi (EPAOFMS). Both Mississippi Power and Entergy predict that most customers will have power restored by 9/11/05. EPAOFMS estimates restoration will not occur until later next week.

Entergy is making inoculations for diphtheria and tetanus available to field crews working in flooded areas around New Orleans. The inoculations are on a voluntary basis.

At this time, the fact that the Waterford 3 nuclear power plant is offline is not causing problems or concerns with regard to Entergy's ability to meet load demands. Entergy plans to restart Waterford 3 and is going through the procedures and steps that are required to do so.

Entergy reports that at its worst point, the company had a total of 660 transmission line-miles, 263 substations and 1,560 distribution feeders out of service; currently, 42 transmission lines and 34 substations are out of service. In Mississippi, all substations are now restored and transmission lines continue to be energized.

Cleco Corp., a Co-op servicing Louisiana, estimated on 9/7/05 that it will have power restored to 80 percent of its customers who can take electricity within the next two weeks.

Mississippi Power lost all of its systems, including telecommunications, and suffered extensive facilities damage, including the use of all generating units at Plant Watson in Gulfport. Restoration crews totaled 9,200 on 9/6/05. Current restoration goals are:

September 8: Bay St. Louis, Long Beach, Wiggins/Saucier  
September 9: Pascagoula/Moss Point, Pass Christian, DeLisle  
September 10: Hattiesburg, Laurel  
September 11: Biloxi, Gulfport, Picayune, Poplarville

The EPAOFMS reports that all 25 electric power associations suffered some loss of service during the storm. Fifteen of those co-ops have completely restored power. Coast Electric Power Association in Bay St. Louis and Southern Pine Electric Power Association in Taylorsville are currently reporting the most customers are without power. More than 7,605 co-op crew members from Mississippi and 14 other states as far away as Pennsylvania are assisting in restoration in the state.

## Florida

The Florida Reliability Coordinating Council (FRCC) State Capacity Emergency Coordinator has discontinued all Generating Capacity Advisories and Alerts associated with the impacts of Hurricane Katrina on fuel supplies to electric generating facilities within the FRCC as of Thursday, September 8th, 2005.

## Additional Information

### **Hurricane Katrina Evacuation and Production Shut-in Statistics Report as of Thursday, September 8, 2005**

Next Report will be issued on Friday, September 9, 2005 at 1:00 PM CDT.

For information concerning the storm click on [www.mms.gov](http://www.mms.gov)

**This survey reflects 56 companies' reports as of 11:30 a.m. Central Daily Time.**

Districts	Lake Jackson	Lake Charles	Lafayette	Houma	New Orleans	Total
Platforms Evacuated	0	0	0	7	118	125
Rigs Evacuated	0	0	0	1	4	5
Oil, BOPD Shut-in	294	2,633	7,971	109,859	780,939	901,726
Gas, MMCF/D Shut-In	27.00	42.26	29.62	605.38	3,316.20	4,020.46

<http://www.mms.gov/ooc/press/2005/press0906.htm>

These cumulative numbers reflect updated production numbers from all previous reports. The reports only represent input received by 11:30 a.m. CDT. If a company does not report by 11:30 a.m. it is not included in the special information release, but it is included in the cumulative shut-in production. This may result in an apparent increase in the cumulative report amount.

## Electricity

### **Grid Improvements in California Reducing Congestion**

According to the president of the California Independent System Operator (Cal ISO) improvements that have been made to the system are showing results in the elimination of bottlenecks and reduced congestion, which have in turn led to lower costs.

[http://pro.energycentral.com/professional/news/power/news\\_article.cfm?id=5933211](http://pro.energycentral.com/professional/news/power/news_article.cfm?id=5933211)

### **Update-Duke's 846 MW Unit 3 at it Oconee Nuclear Station Ramps Up to 91 Percent September 8, 2005**

The unit shut on August 31 during a routine test.  
Reuters 7:56, September 8, 2005

### **TXU's 553 MW Sandow Coal-fired Unit 4 in Texas Shut September 8, 2005**

The unit was shut to repair a boiler tube leak, according to a report filed with Texas regulators.  
Reuters 9:03, September 8, 2005

### **Bruce Power's 750 MW Unit 3 at the Bruce A Nuke in Ontario Shut September 7**

The unit was shut to repair the reactor's regulating system, according to a company release. The unit will return to service in the "coming days."  
Reuters 9:29, September 8, 2005

### **Southern Company's 1,100 MW Watson Power Plant Shut for Up to 3 Months**

Southern CFO expects the plant to be shut for six weeks to three months due to flooding and damage from Hurricane Katrina.  
Reuters 9:58 September 8, 2005

### **Clover Bar to be decommissioned by EPCOR**

On September 6, EPCOR announced that on October first, it would decommission its 660 MW Clover Bar Generating Station in Alberta. The decommissioning process will take up to two years to complete.  
[http://pro.energycentral.com/professional/news/power/news\\_article.cfm?id=5930708](http://pro.energycentral.com/professional/news/power/news_article.cfm?id=5930708)

### **AES's 335 MW Gas-fired Alamos Unit 4 in California Shut September 8**

Reuters 15:29 September 8, 2005

### **SCE's 790 MW Coal-fired Mohave Unit 1 in Nevada Shut September 8**

Reuters 15:29 September 8, 2005

### **Mirant's 312 MW Gas-fired Pittsburg Unit 5 in California Shut September 8**

Reuters 15:29 September 8, 2005

### **Mirant's 317 MW Gas-fired Pittsburg Unit 6 in California Shut September 8**

Reuters 15:29 September 8, 2005

## **Petroleum**

### **Florida Ends Conservation Request**

Florida ended its request for customers to conserve electricity now that natural gas supplies have stabilized following Hurricane Katrina's impact on the Gulf Coast.  
<http://biz.yahoo.com/prnews/050908/clth041.html?v=23>

### **OPEC to Propose 500,000 Barrel per day Increase**

OPEC's president will propose a 500,000 barrel per day increase in crude production at the cartel's next meeting in September, though the Venezuelan Energy Minister indicated that an OPEC increase will not dampen crude prices.  
Reuters 13:09 September 8, 2005

### **Venezuela Diverting Four Gasoline Shipments to US**

According to a government statement, "four additional shipments of gasoline, totaling over 960,000 barrels, taken from storage and diverted from other customers, will be sent to and distributed by PDVSA's wholly-owned U.S. subsidiary, CITGO Petroleum Corp. (CITGO)" this month.

Reuters 18:05 September 7, 2005

### **Alaska Governor Asks Companies to Produce More Oil**

Alaska Governor Frank Murkowski asked the 4 North Slope oil producing companies to do everything possible to produce more oil to make up for losses in the Gulf due to Hurricane Katrina. Both ConocoPhillips and BP indicated that they were producing at full capacity already. However, within the next week, BP plans to reopen its Badami field, shut 2 years ago due to low output. Production was about 1,800 barrels per day when it was shut.

Reuters 21:57 September 7, 2005

### **TECO Resumes Coal Shipments to Tampa Electric**

Utilizing floating cranes at an alternate location upriver, TECO Transport discharged 23,000 tons of coal from its vessels and loaded the coal onto a TECO Ocean Shipping vessel. The coal will be shipped to TECO's sister company, Tampa Electric, via the Gulf of Mexico for delivery on Sept. 9.

<http://biz.yahoo.com/bizj/050908/1161213.html?v=1>

### **DOE- Refiners to Delay Routine Maintenance**

According to Energy Secretary Samuel Bodman, officials with U.S. oil refineries will delay routine maintenance in order to produce more gasoline in the wake of Hurricane Katrina. Secretary Bodman also indicated that sales from the Strategic Petroleum Reserve could surpass 30 million barrels if it is deemed necessary.

Reuters 13:55 September 8, 2005

### **Iraqi Oil Exports Suspended**

Oil exports have been temporarily suspended at the Basra Oil Terminal in the south and at the Ceyhan terminal on Turkey's Mediterranean coast due to bad weather and sabotage. The suspension could sharply reduce Iraqi oil exports for September.

Source: Energy Intelligence Briefing (Wednesday, September 07, 2005, 19:15 GMT)

<http://www.energyintel.com/>

### **Company Damage Assessment Reports**

#### **ATP Restored Production at All but Seven of its Gulf Properties**

ATP Oil & Gas Corporation reported September 8 that production has been restored at all but seven of its Gulf of Mexico properties, which were impacted by Hurricane Katrina. Production output now stands at more than 80 percent of pre-hurricane levels. The remaining Gulf properties are expected to be restored by the end of the year.

[http://biz.yahoo.com/ap/050908/atp\\_oil\\_gas\\_katrina.html?v=1](http://biz.yahoo.com/ap/050908/atp_oil_gas_katrina.html?v=1)

#### **BHP Billiton Ltd. /Plc - Damage Assessment**

All production in the Gulf of Mexico with the exception of the Boris and Mad Dog fields is back on line, according to a company spokesman.

Reuters 20:29, September 7, 2005

#### **Burlington Resources - Damage Assessment**

Burlington Resources Inc. announced on September 7 that its facilities in Louisiana sustained no major damage from the hurricane. The company has restored approximately 60 million cfe/d of production that had been shut-in and has some 65 million cfe/d of production that remains shut-in.

[http://pro.energycentral.com/professional/news/power/news\\_article.cfm?id=5931950](http://pro.energycentral.com/professional/news/power/news_article.cfm?id=5931950)

#### **Capline Pipeline - Damage Assessment**

Capline has been running at nearly 90 percent since Saturday, and meeting scheduled nominations according to operator Shell Oil Corp.

Reuters 18:30 September 7, 2005



### **Dynegy – Damage Assessment**

The Venice and Yscloskey gas processing facilities in Louisiana have both sustained damage from Hurricane Katrina. There was no information on when repairs would be complete.

Reuters 17:45 September 7, 2005

### **Update - Motiva – Convent at 75%, Norco Soon**

According to the company web site, the Convent refinery is at 75% and should be at full production over the next few days, restart at Norco should begin in the next several days.

Bloomberg, 10:35 September 8, 2005

### **Update - Shell – Damage Assessment**

By September 8, Shell Gulf of Mexico oil and gas production is about 36 percent of average first half 2005 production. Shells Gulf of Mexico production is currently about 160,000 barrels of oil equivalent per day, according to a company statement. The deepwater Mars platform was damaged, but no estimate was given as to when it would return to service.

Reuters 10:28 September 8, 2005

For additional information on petroleum, see Highlights/Major Developments

## **Natural Gas**

### **Atmos Expects Gas Service Restoration to Take a Year**

Louisiana and Mississippi's largest natural gas distributor, Atmos Energy Corporation, hopes that 70% of its gas service will be restored within six months and 90% within a year.

<http://powermarketers.net/contentinc.net/newsreader.asp?ppa=8kowu%5D%5BehomhpyZSki%27%40%3E%20bfek%5Cv>

### **Production Improves but Infrastructure Progress Uncertain**

With several offshore rigs back in service and production output improving after Hurricane Katrina, the progress of natural gas infrastructure remains uncertain. Until floodwaters recede and power is restored, several key natural gas pipelines, onshore natural gas processing units, and compressor stations, especially in Louisiana, may be idled, leading to gas shortages this winter.

<http://powermarketers.net/contentinc.net/newsreader.asp?ppa=8kowu%5D%5BehomhpyZSki%27%40%3E%20bfek%5Cv>

Source: NGI's Daily Gas Price Index September 08, 2005

<http://intelligencepress.com/>

### **Update - El Paso Corp - Damage Assessment**

Two El Paso Corp natural gas pipelines in the Gulf of Mexico sustained damage from Hurricane Katrina and are operating below normal capacity. A leak was found on the Tennessee gas pipeline, reducing flow by 700 million cubic feet per day. Flooding at pumping stations caused a reduction of 550 million cubic feet per day on the Southern Natural Gas Pipeline.

Bloomberg, 13:47 September 8, 2005

For additional information on natural gas, see Highlights/Major Developments

## Other News

### Coal Ships Now Able to Unload at Alabama State Port Authority

The Alabama State Port Authority reopened Saturday, September 3, allowing vessels with drafts up to 43 feet to travel through the Mobile Ship Channel open to the McDuffie Coal Terminal. One coal ship was due to unload at the terminal September 7<sup>th</sup>; the other, September 9<sup>th</sup>. A Port Authority representative said that “Canadian National Railway, BNSF Railway, Norfolk Southern Railroad, Kansas City Southern Railroad and CSX Corp. had all resumed service to the port by Tuesday afternoon.”

<http://www.platts.com/Coal/News/6078242.xml?S=n>

## Energy Prices

	<b>Latest (09/08/05)</b>	<b>Week Ago</b>	<b>Year Ago</b>
<b>CRUDE OIL</b> <b>West Texas Intermediate US</b> \$/Barrel	64.80	69.50	42.77
<b>NATURAL GAS</b> <b>Henry Hub</b> \$/Million Btu	10.92	11.36	4.69

Source: Reuters

### This Week in Petroleum from the Energy Information Administration (EIA)

<http://tonto.eia.doe.gov/oog/info/twip/twip.asp>

*Updated on Wednesdays*

### Weekly Petroleum Status Report from EIA

[http://www.eia.doe.gov/oil\\_gas/petroleum/data\\_publications/weekly\\_petroleum\\_status\\_report/wpsr.html](http://www.eia.doe.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html)

*Updated after 1:00pm (Eastern time) on Wednesdays*

### Natural Gas Weekly Update from EIA

<http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp>

*Updated after 2:00 pm (Eastern time) on Thursdays*

### ENSEC threat awareness blog site from Energy Assurance

<http://ensec.blogspot.com>